

IN THE CLAIMS

Please cancel claims 1-30 without prejudice or disclaimer, and substitute new claims 31-60 therefor as follows:

Claims 1-30 (Cancelled).

31. (New) A solid oxide fuel cell comprising a cathode, an anode and at least an electrolyte membrane disposed between said anode and said cathode, said anode comprising a ceramic containing at least one of cobalt and iron, said ceramic being mixed with doped ceria.

32. (New) The solid oxide fuel cell according to claim 31, wherein the ceramic is a perovskite structure or a perovskite-related structure.

33. (New) The solid oxide fuel cell according to claim 31, wherein the ceramic contains cobalt and iron.

34. (New) The solid oxide fuel cell according to claim 31, wherein the ceramic has a formula $M_{2-x}Sr_xFe_{2-y}Co_yO_{5\pm\delta}$ wherein M is Ca or a rare earth element; x and y are independently equal to a value of 0 to 2, and δ is from stoichiometry.

35. (New) The solid oxide fuel cell according to claim 31, wherein the ceramic has a formula $M_xSr_{1-x}Fe_{1.5-y}Co_yO_{3+\delta}$ wherein M is Ca or a rare earth element; wherein x and y are independently equal to a value of 0 to 0.7 and δ is from stoichiometry.

36. (New) The solid oxide fuel cell according to claim 35, wherein the ceramic is $La_{0.8}Sr_{0.2}FeO_3$.

37. (New) The solid oxide fuel cell according to claim 31, wherein the ceramic is a lanthanum strontium cobalt iron oxide.

38. (New) The solid oxide fuel cell according to claim 37, wherein the lanthanum strontium cobalt iron oxide has a general formula $\text{La}_{1-x}\text{Sr}_x\text{Co}_{1-y}\text{Fe}_y\text{O}_{3-\delta}$, wherein x and y are independently equal to a value of 0 to 1, and δ is from stoichiometry.

39. (New) The solid oxide fuel cell according to claim 38, wherein the lanthanum strontium cobalt iron oxide has a formula $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$.

40. (New) The solid oxide fuel cell according to claim 31, wherein the anode is metal free.

41. (New) The solid oxide fuel cell according to claim 31, wherein the ceramic is mixed with the doped ceria in a ceramic/doped ceria ratio of 50:50 to 95:5.

42. (New) The solid oxide fuel cell according to claim 41, wherein the ratio is 60:40 to 80:20.

43. (New) The solid oxide fuel cell according to claim 31, wherein the doped ceria is selected from gadolinia-doped ceria and samaria-doped ceria.

44. (New) The solid oxide fuel cell according to claim 31, wherein ceria is doped with a cation selected from lanthanum, ytterbium, yttrium, calcium, terbium, neodymium or dysprosium.

45. (New) The solid oxide fuel cell according to claim 31, wherein the doped ceria is doped in an amount of about 20% by mole.

46. (New) The solid oxide fuel cell according to claim 31, wherein the doped ceria is $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{1.90}$.

47. (New) The solid oxide fuel cell according to claim 31, wherein the doped ceria has a submicronic particle size.

48. (New) The solid oxide fuel cell according to claim 47, wherein the doped ceria has a particle size lower than 100 nm.

49. (New) The solid oxide fuel cell according to claim 31, wherein the cathode comprises a ceramic selected from:

$\text{La}_{1-x}\text{Sr}_x\text{MnO}_{3-\delta}$, wherein x and y are independently equal to a value of 0 to 1, and δ is from stoichiometry; and

$\text{La}_{1-x}\text{Sr}_x\text{Co}_{1-y}\text{Fe}_y\text{O}_{3-\delta}$, wherein x and y are independently equal to a value of 0 to 1, and δ is from stoichiometry.

50. (New) The solid oxide fuel cell according to claim 31, wherein the cathode comprises a doped ceria.

51. (New) The solid oxide fuel cell according to claim 31, wherein the electrolyte comprises a doped ceria.

52. (New) The solid oxide fuel cell according to claim 31, wherein the electrolyte membrane is not supporting.

53. (New) A method for producing energy comprising the steps of:
feeding at least one fuel in an anode side of a solid oxide fuel cell comprising an anode comprising a ceramic containing at least one of cobalt and iron, said ceramic being mixed with doped ceria, a cathode and at least an electrolyte membrane disposed between said anode and said cathode; feeding an oxidant in a cathode side of said solid oxide fuel cell; and

oxidizing said at least one fuel in said solid oxide fuel cell, resulting in production of energy.

54. (New) The method according to claim 53, wherein the at least one fuel is hydrogen.

55. (New) The method according to claim 53, wherein the at least one fuel is alcohol.

56. (New) The method according to claim 53, wherein the at least one fuel is a hydrocarbon in gaseous form.

57. (New) The method according to claim 56, wherein the hydrocarbon is substantially dry.

58. (New) The method according to claim 53, wherein the at least one fuel is a hydrocarbon in liquid form.

59. (New) The method according to claim 53, wherein the at least one fuel is substantially dry methane.

60. (New) The method according to claim 53, wherein the fuel is internally reformed in the anode side.